

REMARKS

Claims 2, 4, 5, 7 and 14-22 are pending in this application. Amendments to claims 2, 4, 15, 20, 21, and 22 are proposed herein. No new matter is added.

Claims 2, 4, 15, and 17 are independent.

Claim 17 is allowed.

Claims 2, 14-16, 19-20 and 22 stand rejected under 35 U.S.C. §102(e) as being anticipated by Domi et al (U.S. Patent 6,319,461). Claims 4-5, 7, 18 and 21 stand rejected under 35 U.S.C. §103(a) as being obvious over Kenji et al. (referred to as PA) in view of Domi. Independent claim 15 is amended to overcome the rejection. The rejection of independent claims 2 and 4 is respectfully traversed on the basis detailed below.

As amended, independent claim 15 requires an alloy composition for a lead free solder, to which bismuth, antimony, gallium and titanium are not added, having 0.002 to 0.015% by mass of phosphorus and tin. Support for the lack of addition of these elements is found in the originally filed specification at, for example, 1) page 7, line 20, through page 8, line 3; 2) page 15, lines 2-4; 3) page 16, lines 16-18, and associated table 2 on page 17; and 4) page 19, lines 3-8 and associated table 3. Each of these examples discloses one or more compositions to which bismuth, antimony, gallium and titanium are not added.

It is further respectfully submitted that, in view of the prosecution history of this case, the further amendment of claim 15 serves only to further clarify that which has been previously recited in claim 15, i.e. that elements such as titanium are not added to the alloy composition. As the Examiner will understand, the clarification could not have been added to claim 15 until the present response, since the Examiner had not, prior to the Official Action of May 18, 2005, uncovered the newly

cited and applied Domi reference. Accordingly, it is respectfully requested that the proposed after final amendment of claim 15 be entered.

Regarding the prior art rejection under 35 U.S.C. §102(b), Domi discloses, at column 2, lines 1-4 and 11-12, a solder alloy in which titanium is an essential component. Thus, Domi cannot anticipate independent claim 15, and its dependencies (i.e. claims 16, 19 and 22), as they explicitly exclude the addition of titanium.

Independent claim 2 requires, *inter alia*, an alloy composition containing 0.002 to 0.015% by mass of phosphorus with the balance consisting of tin.

Independent claim 4 requires, *inter alia*, a plating, provided on at least one side of a strip conductor, which is formed of a lead-free solder containing 0.002 to 0.015% by mass of phosphorus with the balance consisting of tin.

Thus both independent claim 2 and independent claim 4 require an alloy composition or plating containing or formed of phosphorus with the balance consisting of tin.

As discussed above, Domi explicitly discloses, at column 2, lines 1-4, an alloy in which titanium is an essential component. Thus, it is respectfully submitted that Domi necessarily lacks any teaching or suggestion of an alloy composition or plating containing or formed of phosphorus with the balance consisting of tin. According, it is respectfully requested that the rejection of claims 2 and 4, and their respective dependencies (i.e. 14 and 20, for claim 2, and 5, 7, 18 and 21, for claim 4) be reconsidered and withdrawn on this basis.

It will therefore be understood, that the proposed amendments to independent claims 2 and 4 are not made for purposes of patentability, although the proposed amendments do indeed further distinguish over Domi.

Thus, as proposed herein, claim 2 is amended to further clarify that titanium is not added to said alloy composition, and claim 4 is amended to further clarify that titanium is not added to said plating. As will be understood from the above, since Domi requires titanium as an essential component of its alloy, the now explicit lack of that addition of titanium in the composition or plating of claims 2 and 4, even further distinguishes over Domi.

The proposed amendments to claims 20, 21 and 22 (which respectively depend from claims 2, 4 and 15), further clarify that the alloy composition or plating exclude titanium. As will be understood in view of the above discussion, this clarification also further distinguishes over Domi.

Accordingly, in view of the above, it is respectfully requested that the Examiner reconsider and withdraw the prior art rejections of claims 2, 4, 5, 7, 14-16, and 18-22.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed local telephone number, in order to expedite resolution of any remaining issues and further to expedite passage of the application to issue, if any further comments, questions, or suggestions arise in connection with the application.

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To the extent necessary, applicants petition for an extension of time under 37 C.F.R. §1.136. Please charge any shortage of fees due in connection with the filing of this paper, including extension of time fees, to the Deposit Account No. 01-2135 (Case No. 521.41457X00) and please credit any excess fess to such Deposit Account.

Respectfully submitted,

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